

*With the Author's Comments.*

REMARKS ON CASES  
OF  
RENAL SURGERY,

BY

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As the surgery of the kidney occupies so prominent a place among the many developments of modern surgery, I feel confident the following cases will be deemed worthy of record :—

### MOVABLE KIDNEY: LAPAROTOMY: RECOVERY.

A. M., aged 42, by occupation a fisherman, of temperate habits, and residing at Greystones, co. Wicklow, was admitted into the Meath Hospital on October 7, 1893. He complained of great pain in the abdomen, and stated he had been ill for upwards of five weeks. A large-sized tumour, somewhat ovoid or kidney-shaped, and freely movable, was found in the umbilical region. It was smooth on its surface, and hard; and could be pushed upwards, downwards, and backwards, but not from side to side. On pressing it backwards it could be made to disappear altogether. His suffering, which used to occur in violent paroxysms, was extreme. On one occasion, shortly after his admission into hospital, Mr. Alfred Power, the resident surgeon, was summoned to the medical wards, where he was placed when he first came to the hospital, under the care of Dr. J. W. Moore, on account of the extreme severity of his symptoms. He

found him sitting up in bed with the bedclothes all tossed about him, and a look of intense agony on his face. His pupils were dilated, and large beads of perspiration were on the forehead and nose. His legs were drawn up, and his arms crossed, and pressed tightly against his abdomen. At times he screamed from the agony he endured, and then imploringly besought for anything that could give relief. These attacks of pain were spasmodic in character, and were referred chiefly to the right hypochondriac and umbilical areas, with short intervals of apparently complete relief. During the attacks of pain he would sometimes roll out of the bed and lie on the floor groaning, and at other times roam about the ward seeking by change of position to relieve the pain, often exclaiming that it would kill him. He got little or no sleep at night, notwithstanding the administration of powerful anodynes, which had little or no effect. The urine on examination was found to be normal. The bowels were, and had been for some time, very costive.

The treatment consisted at first in the exhibition of purgatives and anodynes. Turpentine enemata, calomel, hypodermic injections, bromides, Indian hemp, lupulin, chloral hydrate, belladonna, magnesia, ox gall, &c., were all tried, but at all events without any but a very transient beneficial effect.

The case was then transferred to the surgical wards and placed under my care, when it was seen by me for the first time. The history, symptoms and emaciated condition of the patient made me first suspect that the case was one of a malignant tumour of the omentum or transverse colon, or both. Another view that was taken was that it was one of fæcal impaction; another that it was a wandering spleen or a movable or floating kidney. One thing at all events was clear to me, and that was that the case was one for an exploratory laparotomy, but as there was so much obscurity and difference of opinion about the case, before undertaking any operation I brought it down to the Biological Club, when the opinion I had formed that it probably was renal was much strengthened, more particularly by the views expressed on that occasion by Dr. Macan. Accordingly on November 13 I opened the abdomen of an incision about four and a half inches in length along the outer border of the right rectus muscle with its centre corresponding to the

umbilicus. On opening the peritoneum to the same extent as the skin incision I passed my hand into the abdomen, and found that there was no tumour of the omentum, transverse colon or stomach. This latter, however, appeared much distended. Both kidneys were in their normal positions, but the right kidney could be pushed slightly out of its place towards the middle line, though apparently not to any great extent. Under these circumstances, and having regard to the great limitation that there was in the power of moving or displacing the kidney, I did not think myself justified in proceeding any further in the direction of anchoring or suturing the kidney, and so, after a careful toilet of the peritoneum, I brought the edges of the wound together and sutured them with strong asepticised silk in the usual manner.

There is little to be said in reference to the convalescence of the patient. On the evening of the second day the temperature rose to  $101^{\circ}$ , but it fell to the normal standard on the third day, and remained in that satisfactory condition during the rest of the time he was in hospital.

And now comes the most remarkable, surprising, and, I confess, to me inexplicable part of the story of A. M.'s case, namely, that from the day of the operation he has never had the slightest return of any of those alarming and distressing symptoms for which he sought relief, and which a varied and long-continued but ineffectual pharmaceutical battery was wholly powerless to cure or mitigate. In December A. M. returned home, since which time he has continued his avocation as a fisherman, free from all his former distressing symptoms, and in excellent health generally.

#### MOVABLE KIDNEY: NEPHRORRHAPHY: RECOVERY.

For the notes of the following case I am indebted to Mr. William Taylor, Resident Surgeon to the Meath Hospital:

J. S., aged 21, by occupation a general servant, came under my care in the Meath Hospital in June, 1894, having for some time previously been under that of Dr. Lennon. The patient was a well-nourished, healthy-looking girl, who on her admission complained of a tumour, or, as she termed it, a "swelling" on the right side of her abdomen, which caused her great annoyance,

being accompanied by extreme pain, which sometimes was of a lancinating character; and at other times were "dragging" pains across the stomach and right loin. The pain was not always present, nor did she notice any particular time during which it appeared; nor did alteration of position, once it came on, relieve it. Sickness of stomach was sometimes present during these paroxysms of pain. She was unable to sleep at night unless she lay on her right side and partly on her face, and the moment she happened to change her position she awoke with pain. She attributed the presence of this tumour to an attack of enteric fever which she had four years previously to her admission, and during which she had great pain in the situation of the right lumbar region: and then on being allowed up for the first time, she noticed the "swelling," as she termed it, which appeared suddenly.

She menstruated every third week since the first appearance of the catamenia, and at each menstrual period she suffered from extreme pain. For this she was treated successfully at the Rotunda, since which time the menstruation has been quite regular every fourth week, and painless.

Under the influence of an anæsthetic (ether) the tumour disappeared, but on turning over the patient on the left side it again appeared, was kidney-shaped and of the consistence of that organ, and on pushing it towards the lumbar region, with characteristic suddenness it disappeared.

Feeling confident I had to deal with either a floating or a movable kidney, I deemed it a suitable case for a nephrorrhaphy, and accordingly performed the operation on July 6. The patient being anæsthetised by chloroform and a small but firm cushion being placed under the loins of the patient, she being placed in the left latero-prone position, an incision about four inches in length was made, with its centre corresponding to a point midway between the last rib and the crest of the ilium, in the lumbar region obliquely from above and within downwards and outwards, and the tissues divided in layers there until the perirenal fat was reached. This having been cut through, the finger was passed into the wound, but no kidney could be felt, and on withdrawing the finger the ascending colon appeared in the wound. On making firm pressure in front the kidney was pushed

back and appeared in the wound. On removing the anterior pressure great difficulty was experienced in getting the kidney up to the edges of the wound, for whenever it was touched it slipped away and disappeared. On renewing the pressure in front, however, I succeeded eventually in getting the kidney well up into the wound, and held it there with tenacula until I stripped a portion of the capsule and inserted a strong silk suture deeply into the substance of the organ. Arming an aneurysm needle with one of the free ends of the silk suture, I brought it round the last rib and, fastening the two free ends of the suture, securely fixed the kidney to the rib. The deep muscular tissues were then brought together by buried sutures and, a drainage tube being inserted, the edges of the wound were carefully sutured.

It is unnecessary to give the daily progress of this case. It progressed uninterruptedly towards recovery. The wound remained aseptic, the temperature never rose above 100°, and on the fifth day after the operation the sutures and drainage tube were removed, and the wound, except at the point where the drainage tube had been inserted, firmly and completely healed.

On September 2, the patient left the hospital for the convalescent home, and a few weeks subsequently she returned home. Since that she has been able to resume, and I believe efficiently perform, the very arduous duties of a general servant in a small household.

#### TUBERCULOUS PYONEPHROSIS: NEPHRECTOMY: RECOVERY.

For the notes of the following case I am indebted to my colleague, Dr. Craig, under whose care it was originally, and who transferred it to me for surgical treatment, and also to Mr. William Taylor, the resident surgeon of the Meath Hospital:

M. C., aged 33, a house and parlour-maid by occupation, until she married fifteen years ago, was admitted into the medical wards of the Meath Hospital on February 1, 1894, and placed under Dr. Craig's care. After her marriage she went to live in Galway, where she led a laborious life, herding cattle in wet fields, and at home continually worried by domestic quarrels with her mother-in-law. Since she was 17 or 18 years of age she has had

occasional attacks of pain in the right side, which seemed to swell so that she unfastened her clothes to get relief, and with this there was much flatulence and sometimes vomiting. The pain was at times so severe that she wished she was dead. These symptoms would then suddenly disappear, and the patient for a time felt quite well. For some years past she says that at times she passed water very frequently during the day, and felt a scalding during and after passing it. Sometimes the pain would come on suddenly in the street or in chapel, and would make her feel faint and bring on vomiting. She next noticed the urine dark in colour, but generally observed a white sediment after the attacks of pain, and sometimes it was high coloured. She did not observe any bad odour from it until the present attack. On January 22 she got seriously ill with pain in the right side, vomiting, shivering, and feverishness. For a few weeks before she had felt a "gathering" or throbbing on the right side, and for a couple of days before the attack she was drowsy, and felt the side swollen. In a few days after the attack came on she noticed the water was milky-coloured and smelling badly, and it gave her a sharp pain on passing it, and was less than usual in amount. On the day after the attack she went to a situation but had to go to bed at once, and the pain remained and vomiting continued every day until Saturday, when she returned to lodgings. The pain and vomiting continued until Thursday, February 1, when she came into hospital under Dr. Craig's care. The temperature that evening was  $103^{\circ}$ , the pulse 126, and the respirations 28.

A tumour bulging well forward occupied part of the right hypochondriac, right lumbar, and umbilical region. It was very tender to the touch, and fluctuation was evident. It was rounded on the surface, and elongated from above downwards. There was dulness all along its inner border, where a resonant note was elicited, due apparently to the ascending colon. It extended from the under surface of the loin to an inch and a half below the level of the umbilicus, where its lower border was well defined and rounded. The inner border reached the linea alba, unless when pressure was made in the ilio-costal space, in which case the inner border extended for an inch to the left of the middle line, and this pressure made the tumour, which was otherwise not movable, bulge

considerably more forward. The outer border was ill-defined. There was no swelling or tenderness on the left side, and no tenderness over the bladder. The patient was thin and anæmic, tongue coated, no appetite, menses stopped for two months, bowels fairly free. The urine was acid in reaction, and showed a whitish sediment half way up the vessel, was very foetid, and scalds on being passed. With liq. potassæ the sediment became clear and ropy, and under the microscope abundance of pus cells were seen, but no bladder epithelium or casts. The urine was kept daily, and averaged from 36 to 40 ounces. The pus passed was abundant and continuous. Dr. Craig's diagnosis was that the case was one of pyonephrosis, and probably tuberculous in origin rather than calculous. The early irritability of the bladder, and the apparent absence of hæmaturia, with a continuous presence of pus in the urine, seemed against a stone; on the other hand, the left kidney was apparently healthy, and secreting abundance of urine, and there was no evidence of tubercle elsewhere.

Dr. Craig then transferred the case to my wards and on consultation we both agreed that it was one suitable for nephrectomy, and on February 23, I performed the operation. I opened the abdomen by a free incision over the tumour outside the border of the rectus abdominis. The peritoneum was extensively adherent over the tumour, as was likewise the ascending colon which lay along the front of its inner border. The capsule and perinephritic tissue were greatly thickened and adherent all round. After freeing the whole mass the capsule was opened and while endeavouring to enucleate the kidney, which was extremely tense, the thinned cortical substance gave way and a large amount of thin, foetid pus escaped with great force and completely filling up the wound. This caused a complete collapse of the tumour. The pedicle was then transfixed, tied in two sections, and in addition a strong silk ligature firmly tied round the whole. No attempt to separate the vessels or the ureter was made owing to the great amount of thickening and adhesions that were present. The pedicle was then divided and the kidney removed. A mass of the thickened capsule was cut off, and after a most diligent flushing out of the abdomen with a warm boric solution a drainage tube was inserted, and deep and superficial sutures inserted.

Nothing could be more satisfactory than the subsequent daily progress of this case. From the day following the operation there was a steady decline in the temperature, and there was no appearance of pus in the urine. The wound healed immediately, except at the point where the drainage tube was inserted, and on this latter being removed, three days after the operation, the wound completely healed. The patient remained in hospital for about eight weeks after the operation, not suffering in any way, but in a very weak depressed state; the urine was ample in quantity and healthy in character. The patient then left for the convalescent home at Bray, and after a short sojourn there, returned to her home in the West of Ireland. I may mention that the kidney, or rather what remained of it, was examined by my colleague, Professor Scott, at the Royal College of Surgeons, who confirmed the diagnosis that had been made, that the disease was distinctly tuberculous in character.

The points of special interest connected with these cases are, I think, the occurrence in the first one of abnormal renal mobility in a male. In a series of statistical records of movable kidney mentioned by Lancereau, A. W. Foot, Newman, and Keen, to be found in Mr. Frank's paper on this subject, I find that the number of cases in these four records is 702, and that of these only 87 occurred in males, a little over 10 per cent. Also the great obscurity surrounding the etiology of the condition in A. M.'s case is worthy of note, there having been no evidence of his having received any severe traumatism, or of his having suffered from any emaciating disease that might cause absorption of the perirenal fat. He may, having regard to his avocation, which was that of a boatman and fisherman, have been subject to severe strain consequent on lifting weights, &c., and if so, possibly the mechanical theory of Newman, based on the supposition that the displacement is produced by pressure on the kidney, the loin in front, and the crura of the diaphragm behind, consequent on contraction of the abdominal and lumbar muscles, has been too hastily rejected.

Another remarkable circumstance connected with the case was the apparent absence of abnormal renal mobility observed on opening the abdomen. I think, however, that it is highly probable that had the kidney been cut down upon in the lumbar region, the existence of abnormal mobility could have been more easily determined.

Then, again, the cessation of the formidable gastric disturbances which followed immediately after the laparotomy is a noteworthy feature in the case, and not very easy to explain satisfactorily unless that peritoneal adhesions may have formed which limited the movements of the organ. Lastly, that his recovery has been a permanent one, as he has ever since his return home been engaged in his usual arduous avocation of boatman and fisherman at Greystones.

The features of chief interest in the second case were the severity of the gastric symptoms, which were accentuated during menstruation and which completely incapacitated her from following her usual avocation, and the obscurity which surrounds the etiology of the condition in her case. There was no history of injury or strain, she never had been pregnant, nor has she had any long-continued emaciating disease. The patient was in fact a strong, healthy-looking, well-nourished individual. There was no atrophy or absorption in this case of perirenal fat, as it was present in abundance. There must have been some other etiological factor in this case than absorption of it. It is hard to say whether the enteric fever she had four years previously had anything to say to the production of the renal mobility; but I am not aware that the latter condition has been noted as one of the possible sequelæ of that disease.

Another point worthy of mention is the great mobility of the kidney which I found, and which materially added to the difficulties of the operation. When I cut down upon and exposed the kidney all my efforts at fixing the organ and drawing it up to the surface of the wound were unavailing. Whenever I touched it it shot away out of sight and touch, and where it went I could not tell. Ultimately, however, I succeeded in hooking it up with tenacula, and then fixed it to the last rib in the way I have already mentioned.

As regards the *technique* of the operation, there were one or two circumstances connected with the case I have just detailed which added materially to the difficulty of the procedure. One of these was the trouble I had in fixing the kidney before detaching any of its capsule and inserting sutures through its substance. This, I feel sure, could be obviated by having a larger and firmer cushion placed under the left lateral and interior region of the

abdomen than the one I had. I think, too, that Edebohls's prone position is probably in many respects superior to the latero-prone position of Marion Sims. I think, also, that although nothing untoward occurred in reference to the suture during the convalescence of my patient, it would be better to insert a larger number of them. Dr. Edebohls is in the habit of inserting four or five. Formerly he used kangaroo tendon, but latterly silkworm gut. In the case I have detailed I employed carefully-prepared asepticised silk, and in any future cases I will certainly adhere to this material, as it does not cut through the tissues so readily as the silkworm gut; the kidney tissue being, as Dr. Edebohls correctly observes, "exasperatingly friable."

Various theories have been advanced to account for the gastric disturbances or crises that at times are present and in so aggravated a form "that," as Le Dentu has said, "life becomes nothing but an endless torture." These are: (1) Dragging of the kidney upon the renal vessels and tissues. (2) Pressure of the kidney on the middle part of the duodenum (Morris). (3) Traction of the kidney on the vertical portion of it (Kendal Franks). (4) Stretching and irritation of the solar plexus and its branches (Edebohls). This latter view of Edebohls's is based on the fact that the gastric disturbances cannot altogether depend on duodenal obstruction, as they are present when the left kidney is displaced—a condition, however, which is of great comparative rarity.

In the nephrectomy case the difficulties I experienced in removing the kidney, owing to the extensive adhesions that bound the organ firmly to all the surrounding tissues, were extreme. Along with this there was the unhappy incident of rupture of a thinned portion of the capsule, which was followed by what it is no exaggeration to say was a perfect torrent of purulent matter into the cavity of the peritoneum. This made me at the time despair of ever being able to bring the case to a successful issue—a gloomy anticipation which happily was not realised; for the accident did not, in truth, appear in any way to affect injuriously the subsequent progress of the case. It is hard to account for this, unless we accept the view which was suggested to me by Professor Ashton, of Philadelphia, to whom I communicated the main facts of the case when I met him last autumn at the meeting of the British

Medical Association at Bristol, namely, that the purulent matter was probably in a sterilised condition. In connection with this point, I may mention that last April I witnessed a nephrectomy performed by Professor Durante, of Rome, the case being one singularly analogous to the one I have just detailed. Rupture of the capsule also occurred in Professor Durante's case, and a portion of the contents unavoidably got into the peritoneum. I do not know what was the ultimate result of his case, but I heard that six days after the operation the patient was doing well. It is satisfactory, therefore, to know that this accident, which from *a priori* considerations one would suppose would probably be followed by calamitous results, is not necessarily attended by such. I regret much that a careful examination of the purulent fluid effused into the peritoneum was not made by a skilful bacteriologist, as the result—in verifying or disproving the view as to the alleged sterilisation of the former—would have been of equal interest and importance, as well to the scientist as to the practical surgeon.

